of the motor is responsive to control signals received from input control mechanisms, and when the operation of the motor is opposite to, or conflicts with, the motor's operation corresponding to said control signals.

34. (New) A toy vehicle as recited in claim 27 wherein said control logic is based on an algorithm that employs random elements, which determine when the operation of the motor is responsive to control signals received from input control mechanisms, and when the operation of the motor is opposite to, or conflicts with, the motor's operation corresponding to said control signals.

35. (New) A toy vehicle as recited in claim 27, further comprising a mechanism to steer the vehicle.

36. (New) A toy vehicle as recited in claim 35 further comprising a control logic segment that controls the operation of the steering mechanism independent of control signals received from the input control mechanisms.

37. (New) A toy vehicle as recited in claim 36 wherein said control logic segment is based on an algorithm that employs random elements, which determine when the operation of the steering mechanism is responsive to control signals received from input control mechanisms, and when the operation of the steering mechanism is opposite to, or conflicts with, the steering operation corresponding to said control signals.

38. (New) A toy vehicle as recited in claim 36 wherein said control logic segment is based on an algorithm that evaluates user's interactions with the vehicle to determine when the operation of the steering mechanism is responsive to control signals received from the input control mechanisms, and when the operation of the steering mechanism is independent of said control signals.

REMARKS

Reconsideration of the above-identified application in view of the amendments above and the remarks following is respectfully requested.

Claims 1-25 were originally in this case. Claims 1-25 have been rejected. Claims 6 & 11 have now been cancelled. Claims 1-3, 5, 10, 12-14, 16, 20-22, 24 & 25 have now been amended. Claims 26 to 38 have now been added.

Substance of Interview, Dated May 28, 2004

Following receipt of the Office Action, mailed on March 6, 2004, the Applicant contacted the Examiner, and requested a personal interview to discuss the grounds for the rejection of the submitted claims.

A personal telephone interview took place on May 28, 2004, and was conducted by the Examiner, Ms. Urszula M. Cegielnik. During the interview, the Applicant advised the Examiner that he will address the rejection under 35 USC § 112 by changing the language used in claims 1, 10, 16, and 22 from "and/or" to "and." The Applicant further advised the Examiner that he will clarify the limitation "random elements" recited in Claims 2 & 24.

With respect to the rejection under 35 USC § 102, the Applicant explained to the Examiner that Collier does not disclose any structure that control the operation of the motor independent of the input control means, that Collier does not disclose any mechanism to store responses by the user to interactions generated by the vehicle, and that Collier does not disclose or describe any structure to generate interactions with the user of the vehicle. The Application further explained that Collier's patent pertains only to a system that generate sound effects responsive to internal control signals, on board sensors, or external stimulus.

In addition, the Applicant explained to the Examiner that the "pre-programmed movement" of the toy truck described in Gerold et al is directly responsive to the input received from the sound detecting circuits and, as such, it is responsive to an input control mechanism. The Applicant further explained that said toy truck does not initiate any interactions with the

player. Rather, it responds to commands received from the player in the form of switch activations and sound. Further, the Applicant pointed to the Examiner that the specification of the present invention, as well as claim 25, clearly defines input control mechanisms to include various types of sensors as well as a voice-activated switch.

In response, the Examiner acknowledged the Applicant's comments, and requested the Applicant to submit his written response to the Office Action mailed on March 6, 2004.

Claim Rejections – 35 USC § 112

The Examiner rejected claims 1-25 under 35 U.S. C. § 112, second paragraph, as being "indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention." The Examiner pointed out that each of claims 1, 10, 16, and 22 uses the term "and/or," which renders the claim indefinite.

Claims 1, 10, 16, and 22 have now been amended by replacing the term "and/or" with the term "and." Accordingly, it is believed that the Examiner's rejection pursuant to 35 U.S. C. § 112, second paragraph, related to the use of the term "and/or," has been addressed.

Further, the Examiner pointed out that claims 2 and 24 recite the limitation "random elements," and that "it is not clear what the applicant intends to claim through this recitation."

Claims 2 and 24 have now been amended to clarify the meaning of the limitation "random elements." Accordingly, it is believed that the Examiner's rejection pursuant to 35 U.S. C. § 112, second paragraph, has been addressed.

Claim Rejection – 35 USC § 102

(i) Anticipation by Collier (U.S. Patent No. 4,964,837)

The Examiner rejected claims 1-6, 9, 10, 11, 13, 14, 15, and 22-25 under 35 U.S.C. § 102

(b) as being anticipated by Collier.

In United States Patent No. 4,964,837 (hereinafter the '837 patent), Collier discloses a toy vehicle that provides "self-contained sound effects system for model radio controlled vehicle." The specification explains:

> "The present invention provides a portfolio of sound effects, all of which are stored in appropriate circuitry on the vehicle and which are selectively outputted in accordance with a software program to **realistically coordinate the sound effects with the action of the toy vehicle**." (emphasis added, 2:64-3:1)

Further, the '837 patent explains the main objective of the invention as:

> "to generate realistic sound effects in response to (a) the actual control signals on the vehicle, (i.e., turning left, accelerating), (b) the physical condition of the vehicle (i.e., crashing, roll-over), and (c) the presence of external stimulus (i.e., a beam of light directed at the vehicle.)" (2:50-57).

In addition, under the "General Description" section of the specification, the operation of the invention is summarized as follows:

> "The present invention provides a fully self-contained system entirely resident on the vehicle which generates realistic sound effects as a coordinated part of the internal operation of the vehicle such as idle, driving and gunning motor sounds, acceleration, gear shifting, tire squealing sounds upon peel-out or sharp turning, and crash sounds. Optionally, the system includes the generating of asynchronous sounds, activated remotely such as 'machine gun fire', 'rocket launch', and 'siren sounds" (5:21-30).

Also, the specification describes two basic modes of operation. The first mode is identified as "self-contained," wherein the sound effects are generated on board the vehicle in response to internal control signals, on board sensors responsive to a number of physical conditions of the vehicle, or on board sensors responsive to a number of external stimulus directed towards the vehicle (7:24-37).

Furthermore, the sensors described in the specification are solely for the purpose of generating sound effects. None of the sensors described in the '837 patent is used to control the motor of the vehicle (15:6-16:4). In fact, the specification clearly states:

> Such sensors may be used to detect a variety of physical situations of the vehicle during its operation. The detected signals from such sensors, as discussed above, are sent to the microprocessor 500 through a suitable buffer 320 which are then used as the basis for the microprocessor to **generate the appropriate sound effect related to the detection situation**" (emphasis added) (15:66-16:4).

In the Office Action Summary, the Examiner based her rejection on four (4) erroneous suppositions: (1) that Collier discloses "additional means (100) to control the operation of the motor (30) independent of the input control means (220, 230);" (2) that Collier discloses a computer memory that "stores responses being sound effects which are responses to the user interacting with the vehicle;" (3) that Collier discloses a "program segment that generates interactions with the user of the vehicle (10);" and (4) that Collier discloses a second state "during which the vehicle executes one or more pre-programmed movements that are not responsive to the input control mechanisms (220, 230)."

The above listed suppositions are not supported by the disclosure in the '837 specification. Rather, based on the specification of the '837 patent, the following conclusions are made:

First, other than the remote control apparatus, Collier does not disclose any mechanism or structure that "control the operation of the motor independent of the input control means;"

Second, Collier does not disclose any mechanism or structure that stores responses **by the user** to interactions generated by the vehicle;

Third, Collier does not disclose or describe any structure that "generates interactions with the user of the vehicle," rather the described system generates sound effects responsive to internal control signals, on board sensors, or external stimulus; and

Fourth, Collier does not disclose any pre-programmed movements that are not responsive to the input control mechanisms.

Therefore, it is respectfully submitted that claims 1-6, 9, 10, 11, 13, 14, 15, and 22-25, as well as new claims 26-38 are patentably distinguishable over Collier at least by virtue of controlling the operation of the motor independent of the input control means, generating interactions with the user of the vehicle, and/or storing responses by the user to said interactions generated by the vehicle. As such, it is submitted that claims 1-6, 9, 10, 11, 13, 14, 15, and 22-25, as well as new claims 26-38 are not anticipated by the cited reference of Collier.

(ii) Anticipation by Gerold et al (U.S. Patent No. 6,039,626)

In the Office Action Summary, the Examiner further rejects claims 1, 8-10, and 22 under 35 U.S.C. § 102 (e) as being anticipated by Gerold et al.

In United States Patent No. 6,039,626 (hereinafter the '626 patent), Gerold et al disclose an invention that "relates to a voice-activated toy truck having animated features that move in response to a child's voice" (1:6-8). The specification explains:

> "A sound detecting circuit adapted to detect sound provides actuating signals to control circuit that is coupled to the first and second actuator assemblies and that causes the assemblies to operate in the manner described" (1:40-44).

In addition, the specification explains that the toy truck "is provided with a number of switches that may be used to actuate the animated feature actuator assembly 47 or may be used to actuate a sound generating device such as a speaker 115 causing it to generate audible phrases or sound effects" (5:32-37).

Further, with reference to **FIG. 13**, the specification describes the tasks performed by "program 3" in response to an input received from the sound detecting circuit **148** (9:24-48). This description, as well as the logical steps included in **FIG.3** indicate that one of the tasks performed in response to an input received from the sound detecting circuit is to "actuate[s] the wheel-drive gear assembly 48 by driving the motor 52 in a forward direction" (9:38-41).

Therefore, the "pre-programmed movement" of the toy truck is directly responsive to the input received from the sound detecting circuits and, as such, it is responsive to an "input control mechanism." In fact, FIGS 11 & 14 of the flowchart of the computer program for the microprocessor indicate that, in the absence of an input received from either the control switches (119, 132, 141 & 144) and the sound detecting circuit, the toy truck will "POWER DOWN."

Also, similar to Collier, the toy truck does not initiate any interactions with the player. Rather, it responds to commands received from the player in the form of switch activations and sound.

The specification of the present invention, pages 5, 6, 14, 15, 16, 18, 19 & 21, as well as claim 25, clearly defines input control mechanisms to include various types of sensors and voice-activated switches.

New Claims

Applicant is submitting herein a number of new claims (claims 26-38). The newly added claims are amply supported in the specification. For the reasons set forth below, these new claims should be allowed:

Applicant's new dependent claim 26 is submitted to be patentably distinguishable over the cited references of Collier and Gerold et al for at least the same reasons as independent claim 1, from which this claim depends, and for additional features that dependent claim 26 recites. As such, it is requested that new dependent claim 26 likewise be allowed.

Applicant's new independent claim 27 is based on a feature of the present invention that activates the motor of the vehicle independent of the signals received from the input control mechanisms. Claim 27 includes the limitation: "**a control logic executed on the processor, and**

which controls the operation of the motor independent of control signals received from said input control mechanisms." This feature is fully supported in the specification.

Further, as discussed above, the cited references of Collier and Gerold et al do not disclose such feature. Hence, it is respectfully submitted that new claim 27 is patentably distinguishable over Collier and Gerold et al at least by virtue of the feature to activate the motor of the vehicle independent of the signals received from the input control mechanisms. As such it is submitted that Applicant's new independent claim 27 is not anticipated by the cited references of Collier and Gerold et al, and should be allowed.

Applicant's new dependent claims 28-38 are submitted to be patentably distinguishable over the cited references of Collier and Gerold et al for at least the same reasons as independent claim 27, from which these claims depend, and for additional features that dependent claims 28-38 recite. As such, it is requested that new dependent claims 28-38 likewise be allowed.

CONCLUSION

Reconsideration of the above-identified application in view of the amendments and remarks above is respectfully requested. The Applicant firmly believes that the amended and newly drawn claims address all of the Examiner's grounds for rejection. It is also believed that this application is in a condition for allowance.

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CLAIMS

What is claimed, and desired to be secured by letters of patent is:

1. (Amended) A toy vehicle comprising:

vehicle chassis or frame having a plurality of wheels,

motor driving at least one wheel of the vehicle,

input control means to enable a player to control the motor [and/or], and interact with the vehicle, and

additional means to control the operation of said motor independent of control signals received from the input control means.

2. (Amended) The toy vehicle of claim 1, wherein said additional means to control the operation of said motor includes [random elements] an algorithm that employs random elements to determine when the motor is activated independent of control signals received from the input control means.

3. (Amended) The toy vehicle of claim 1 further comprising [radio or infrared] a receiver mounted in the vehicle to receive signals from a transmitter unit located remotely from said vehicle.

4. The toy vehicle of claim 3 wherein said input control means are located on the transmitter unit.

5. (Amended) The toy vehicle of claim 1 wherein [said means to control] the operation of the motor is at certain times responsive to said input control means, and at other times is not responsive to, and is independent of, the input control means.

Claim 6 has been cancelled

7. The toy vehicle of claim 1 wherein said additional means to control the operation of the motor may at certain times generate motion signals that conflict with signals received from said input control means.

8. The toy vehicle of claim 1 further comprising a mechanism to steer the vehicle.

9. The toy vehicle of claim 1 wherein the housing of the vehicle is shaped as

a motorcycle, car, truck, van, military tank, train, plane or a boat.

10. (Amended) A toy vehicle comprising:

vehicle chassis or frame having a plurality of wheels,

motor driving at least one wheel of the vehicle,

input control mechanisms to enable a player to control the motor [and/or], and interact with the vehicle,

a microprocessor,

a control logic executed on a processor to control the operation of the vehicle,

a control logic segment that generates interactions with the user of the vehicle, [and]

computer memory to store user's responses to interactions, and

a control logic segment that controls the operation of said motor independent of the control signals received from input control mechanisms, or in the absence of such control signals, and based on user's responses to interactions.

Claim 11 has been cancelled

12. (Amended) A toy vehicle as recited in claim 10, wherein said control logic segment that controls the operation of the motor is based on a first algorithm that derives or defines knowledge information, which includes normal responses to interactions, and a second algorithm that evaluates the user's response to [the last interaction] interactions, for classifying into one of a plurality of categories, wherein a first category corresponds to a normal response, and at least a second category corresponds to a response that is different from the normal response.

13. (Amended) The toy vehicle of claim 10 further comprising [radio] a receiver mounted in the vehicle to receive [a radio-control signal] input control signals from a transmitter unit located remotely from said vehicle.

14. (Amended) The toy vehicle of claim [10] 13 wherein said input control mechanisms are located on the transmitter unit.

15. The toy vehicle of claim 10 wherein said responses includes plugging in accessories into the toy vehicle.

16. (Amended) A toy vehicle comprising:

vehicle chassis or frame having a plurality of wheels,

motor driving at least one wheel of the vehicle,

input control mechanisms to enable a player to control the motor [and/or], and interact with the vehicle,

a microprocessor,

a software program executed on a processor to control the operation of the vehicle,

a program segment that generates interactions with the user of the vehicle,

computer memory to store user's responses to interactions,

a program segment that derives or defines knowledge information, which includes normal responses to interactions, and

a program segment that controls the operation of said motor independent of the input control mechanisms, and based on evaluating user's responses to interactions, and comparing such responses to normal responses.

17. The toy vehicle recited in claim 16, wherein said responses include activating accessories to the vehicle.

18. The toy vehicle recited in claim 16, wherein said responses include plugging in accessories to the vehicle.

19. The toy vehicle recited in claim 16, wherein said program segment that controls the operation of the motor independent of the input control mechanisms, causes the vehicle to operate in a plurality of states.

20. (Amended) The toy vehicle recited in claim 19, wherein said plurality of states includes a first state during which the operation of the [vehicle] motor is totally responsive to input control mechanisms, and a second state during which the operation of the [vehicle] motor is [partially] at certain times responsive to input control mechanisms, [and a third state during which the vehicle], and at other times is totally not responsive to said input control mechanisms.

21. (Amended) A toy vehicle as recited in claim 20, further comprising a

program segment that controls the vehicle to execute one or more pre-programmed movements during said second state when the [vehicle] motor is not responsive to input control mechanisms.

22. (Amended) A toy vehicle comprising:

vehicle chassis or frame having a plurality of wheels,

motor driving at least one wheel of the vehicle,

input control mechanisms to enable a player to control the motor [and/or], and interact with the vehicle,

a microprocessor,

a software program executed on a processor to control the operation of the vehicle,

a program segment that generates interactions with the user of the vehicle, and

a program segment that controls the vehicle to operate in a plurality of states, including a first state during which the operation of said motor is [independent of] responsive to the input control mechanisms, and a second state during which the vehicle executes one or more pre-programmed movements that are not responsive to the input control mechanisms.

23. A toy vehicle as recited in claim 22, wherein said program segment that controls the vehicle to operate in a plurality of states is based on evaluating user's responses to interactions, and comparing such responses to predefined normal responses.

24. (Amended) A toy vehicle as recited in claim 22, wherein said program segment that controls the vehicle to operate in a plurality of states is based on [random elements] an algorithm that employs random elements, and which determines when the operation of the motor is responsive to control signals received from the input control mechanisms.

25. (Amended) A toy vehicle as recited in claim 22, wherein said input control mechanisms include plurality of push buttons, switches, pressure switches, touch switches, sensors, voice activated switches, push buttons located on a remote control apparatus, [and/or], or accessories that can be plugged into the [device] vehicle to enable a user to control the vehicle and provide responses to interactions.

26. (New) A toy vehicle as recited in claim 1, wherein said input control means include a plurality of push buttons, switches, pressure switches, touch switches, sensors, voice activated switches, push buttons located on a remote control apparatus, or accessories that can be plugged into the vehicle.

27. (New) A toy vehicle comprising:

vehicle body having a plurality of wheels,

motor driving at least one wheel of the vehicle,

input control mechanisms to enable a player to control the motor and interact with the vehicle,

a microprocessor or a micro-controller to control the operation of the vehicle, and

a control logic executed on the processor, and which controls the operation of the motor independent of control signals received from said input control mechanisms.

28. (New) A toy vehicle as recited in claim 27 wherein said control logic includes an algorithm that employs random elements, and which determines when the operation of the motor is independent of the control signals received from input control mechanisms.

29. (New) A toy vehicle as recited in claim 27 wherein said control logic is based on an algorithm that evaluates user's responses to interactions generated by the vehicle, and which determines when the operation of the motor is independent of the control signals received from input control mechanisms.

30. (New) A toy vehicle as recited in claim 27 wherein said control logic is based on an algorithm that evaluates user's interactions with the vehicle to determine when the operation of the motor is responsive to control signals received from the input control mechanisms, and when the operation of the motor is independent of said control signals.

31. (New) A toy vehicle as recited in claim 27 wherein said control logic is based on an algorithm that evaluates user's interactions with the vehicle to determine when the operation of the motor is responsive to control signals received from input control mechanisms, and when the operation of the motor is based on pre-programmed

movements.

32. (New) A toy vehicle as recited in claim 27 wherein said control logic is based on an algorithm that compares user's responses to interactions initiated by the vehicle with anticipated responses to determine when the operation of the motor is responsive to control signals received from input control mechanisms, and when the operation of the motor is independent of said control signals.

33. (New) A toy vehicle as recited in claim 27 wherein said control logic is based on an algorithm that evaluates user's interactions with the vehicle to determine when the operation of the motor is responsive to control signals received from input control mechanisms, and when the operation of the motor is opposite to, or conflicts with, the motor's operation corresponding to said control signals.

34. (New) A toy vehicle as recited in claim 27 wherein said control logic is based on an algorithm that employs random elements, which determine when the operation of the motor is responsive to control signals received from input control mechanisms, and when the operation of the motor is opposite to, or conflicts with, the motor's operation corresponding to said control signals.

35. (New) A toy vehicle as recited in claim 27, further comprising a mechanism to steer the vehicle.

36. (New) A toy vehicle as recited in claim 35 further comprising a control logic segment that controls the operation of the steering mechanism independent of control signals received from the input control mechanisms.

37. (New) A toy vehicle as recited in claim 36 wherein said control logic segment is based on an algorithm that employs random elements, which determine when the operation of the steering mechanism is responsive to control signals received from input control mechanisms, and when the operation of the steering mechanism is opposite to, or conflicts with, the steering operation corresponding to said control signals.

38. (New) A toy vehicle as recited in claim 36 wherein said control logic segment is based on an algorithm that evaluates user's interactions with the vehicle to determine when the operation of the steering mechanism is responsive to control signals

received from the input control mechanisms, and when the operation of the steering mechanism is independent of said control signals.